

*B7 (a)(c)1*

circuit-switched bus, wherein each packet comprises a number of fields containing information, including a routing field, an address field, a source field, a transaction type field, a transaction identifier field, said circuit comprising:

circuitry for determining if the information in a packet matches one or more conditions; and

circuitry for preventing a module from putting further information packets onto said interconnect if it is determined that information on the interconnect matches said one or more conditions

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#### REMARKS/ARGUMENTS

Claims 1 and 3-25 remain in this application and claim 26 is added by this amendment. Claims 1, 16, 24 and 25 are amended to more distinctly describe the subject matter of the invention. These amendments are intended to clarify the meaning of the term "packet", but are not intended to otherwise affect the scope of the subject matter being claimed. No new matter is added by these amendments and the amendments are not intended to affect the scope of the claims.

##### **A. Double patenting**

A suitable terminal disclaimer will be supplied upon indication of allowable subject matter.

##### **B. Rejections under 35 U.S.C. 102**

Claims 1, 3, 7-9, 11-14, 16 and 18-25 were rejected under 35 U.S.C. 102 as anticipated by Wolff et al. This rejection is respectfully traversed.

While it is appreciated that the Examiner must take the broadest reasonable meaning for claim terminology when examining claims, it is respectfully believed that the interpretations being applied to reject the instant claims violate the accepted meanings for those terms. In particular, claims 1, 22, 33, 34 and 34 each call for, in varying language, packets of information. The Wolff et al. reference shows two parallel busses which deliver a "set" of signals. This set of signals would not be confused as a packet by anyone of skill in the art of data communication. This set of signals is akin to a circuit-switched connection in which a circuit connection is made

between communicating ends of the bus. The signals in Wolff et al. are not transmitted as a unit as each member of the “set”, by design and necessity, travels on a separate signal line. Line noise, switching errors, voltage errors, and the like may affect one member of the set without impacting any other member of the set.

To apply another definition of the word “packet”, Newton’s Telecom Dictionary, 18<sup>th</sup> Edition (2002) describes the three principle elements of a “packet” as:

- 1) Header—control information such as synchronizing bits, address destination or target device, address of originating device, length of packet, etc.
- 2) Text or payload—the data to be transmitted....
- 3) Trailer—end of packet and error detection and correction bits.”

While it is believed that the term packet as used in the claims is clear and definite, in the spirit of cooperation claims 1, 16, 24and 25 have been amended to define a packet as containing packet routing information. Packet routing information, described generally at page 5 of the specification, is believed to be a particular type of information that does not appear in a bus-type interconnect of the Wolff reference. The set of signals in Wolff et al. is not routed—it is coupled end-to-end by the physical interconnect. The set of signals in Wolff et al. do not contain routing information as there is but one source and one destination possible. . The set of signals in Wolff et al. is not a unit of data, it is a collection of separate signals. Accordingly, Wolff et al. do not show a packet as called for in the claims. At least this feature of the independent claims is not shown or suggested in the Wolff et al. reference.

Using yet another definition from Newton’s Telecom Dictionary, an “Information Packet” is defined as: “A bundle of data sent over a network. The protocol used determines the size and makeup of the packet.” In Wolff et al, the size of the set of information is determined by the number of signal lines in the bus, and not by a protocol used. In contrast, the claims call for packets of information in the ordinary meaning of that term where the packet size is determined by a protocol choice, not a hardware limitation. The patent office itself recognizes in the Manual of

Classification (see class 370/352, for example) that packet switching is a distinct, defined type of switching that is different from circuit switched type connections as shown in the applied reference.

Independent claims 1, 16, 24 and 25 call for, in varying language, monitoring packet information on an interconnect. Wolff et al. do not monitor information from the interconnect as that term is used in the instant application. The office action appears to dismiss this limitation of the claims by simply rebutting that this is merely a general allegation that the claims define a patentable invention. However, this is not merely a general allegation: specifically, the term “information” has specific, well-understood meaning that is different from what is taught in Wolff et al.

With respect to the term “information”, it is respectfully believed that monitoring the value of a single signal line violates the commonly accepted meaning of the term information. For example, Merriam-Webster’s online dictionary defines information as: “...the attribute inherent in and communicated by one of two or more alternative sequences or arrangements of something...”. Wolff et al. merely compare two signal lines to see if they are the same, while being entirely unconcerned with the value of that signal line. So long as both signal lines are logic high or logic low, Wolff et al. will consider them a match. To consider the action of Wolff et al to be acting upon information violates the meaning of the word information.

Further, claims 1, 16, 24 and 25 call for a determination of whether the information in a packet satisfies one or more conditions. Because Wolff et al. compare a binary signal to another binary signal there is one and only one “condition” that can be satisfied. Specifically, Wolff et al. can only determine if the signals match, and determine if any other condition is satisfied.

For at least these reasons, claims 1, 3, 7-9, 11-14, 16 and 18-25 are believed to be allowable over Wolff et al.

### C. Rejections under 35 U.S.C. 103

Claims 4-6 were rejected under 35 U.S.C. 103 as unpatentable over Wolff et al. in view of Cepulis et al. This rejection is respectfully traversed. Claims 4-6

depend from claim 1 and are believed to distinguish over Wolff et al. for at least the same reasons as claim 1. Cepulis et al. do not supply the deficiencies noted above as, like Wolff et al., the reference does not contemplate packet interconnects.

Claim 10 was rejected under 35 U.S.C. 103 as unpatentable over Wolff et al. in view of Ardini, Jr. et al. This rejection is respectfully traversed. Claim 10 depends from claim 1 and is believed to distinguish over Wolff et al. for at least the same reasons as claim 1. The Ardini reference does not supply the deficiencies noted above as, like Wolff et al., the reference does not contemplate packet interconnects.

Claims 15 was rejected under 35 U.S.C. 103 as unpatentable over Wolff et al. in view of Pizzicia. This rejection is respectfully traversed. Claims 15 depends from claim 1 and is believed to distinguish over Wolff et al. for at least the same reasons as claim 1. Pizzicia does not supply the deficiencies noted above as, like Wolff et al., the reference does not contemplate packet interconnects.

Claims 17 were rejected under 35 U.S.C. 103 as unpatentable over Wolff et al. in view of Bershteyn et al. This rejection is respectfully traversed. Claims 17 depends from claim 16 and is believed to distinguish over Wolff et al. for at least the same reasons as claim 16. Bershteyn et al. do not supply the deficiencies noted above as, like Wolff et al., the reference does not contemplate packet interconnects.

#### **D. Conclusion**

In view of all of the above claims 1 and 3-25 are believed to be allowable and the case in condition for allowance which action is respectfully requested. The references that were cited and not relied upon are believed to be no more pertinent than those references that were relied upon.

No fee is believed to be required by this response as determined on the accompanying transmittal letter. Should any other fee be required, please charge Deposit 50-1123. This response is filed together with a request for a two month extension of time and the required fee of \$110. Should any additional extension of time be required please consider this a petition therefore and charge the required fee to Deposit Account 50-1123. Attached hereto is a marked-up version of the changes

made to the specification and claims by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made"

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**A. In the claims**

1(Twice Amended). A circuit for monitoring packet information including packet routing information put onto an interconnect by one or more modules, said circuit comprising:

5       circuitry for determining if the information in a packet matches one or  
more conditions; and

          circuitry for preventing a module from putting further information  
packets onto said interconnect if it is determined that information on the  
interconnect matches said one or more conditions.

10       16(Twice Amended). A functional circuit comprising: an interconnect;  
one or more modules connected to the interconnect; and  
a monitoring circuit for monitoring information packets put onto the  
interconnect by one or more modules, said information packets including  
packet routing information and said monitoring circuit comprising:

15       circuitry for determining if the information packet on the interconnect  
matches one or more conditions; and

          circuitry for preventing a module from putting further information onto  
said interconnect if it is determined that information packet on the  
interconnect matches said one or more conditions.

24(Twice Amended). A circuit comprising:  
an interconnect;  
one or more modules connected to the interconnect to put information  
packets onto the interconnect, wherein the information packets comprise  
5       packet routing information;  
an arbiter for determining which module is permitted to put  
information packets onto the interconnect; and  
          circuitry for preventing a module from putting further information  
packets onto said interconnect, said preventing circuitry preventing a module  
10      from winning an arbitration carried out by said arbiter.

25(Twice Amended). A method comprising the steps of:  
monitoring information packets on an interconnect, the information  
comprising packet routing information and being put onto the interconnect by  
one or modules; determining if the information on an interconnect satisfies  
one or more conditions; and

preventing a module from putting information packets onto an  
interconnect if it is determined that the information satisfies one or more  
conditions.

26(NEW). A circuit for monitoring packet information put onto an  
interconnect by one or more modules, wherein said interconnect is not a  
circuit-switched bus, wherein each packet comprises a number of fields  
containing information, including a routing field, an address field, a source  
5 field, a transaction type field, a transaction identifier field, said circuit  
comprising:

circuitry for determining if the information in a packet matches one or  
more conditions; and

10 circuitry for preventing a module from putting further information  
packets onto said interconnect if it is determined that information on the  
interconnect matches said one or more conditions.